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palate and cause the patient to gag and choke and subsequently force the patient to eject it out of his/her mouth. This approach is equivalent to almost packing the dam down the patient's throat.

In my recitations, I go over the fact that if a rubber dam appliance is to extend bilaterally back to the last molars and still be comfortable to the patient and a successful isolation device, it cannot violate the intra-alveolar space, which would cause it to impinge on the patient's tongue, soft palate, and throat. In my disclosure, I discuss the consequences of violation of the intra-alveolar space, which this dam violates. My rule of thumb is that a flat, closed ended bilateral three-dimensional rubber dam of any type, should not be designed to extend any more posteriorly than ½ of the distance from front to back of the alveolar arch in order to be comfortable to the patient. Dams that are designed to isolate teeth anteriorly of this demarcation line are classified as anterior dams and isolate teeth in the front half of the mouth primarily (i.e. the front half of the alveolar arch). Posterior whole-arch dams should be designed with a concave inner diaphragm to make room for the patient's tongue, predictably allow for reflexive swallowing movements, and to prevent impingement of the dam on the patient's soft palate, thereby avoiding the gagging response. (see my continuation-in-part application Serial Number 10/728,100, Fig. 25b and Fig. 25c, and also 25d, and 25e with these inner central diaphragms labeled 17) in order to be predictably tolerated by the majority of the population. Of course, there are always exceptions to the rule when human beings are involved in a discussion, but these general rules-of-thumb for designing three-dimensional rubber dams have quite predictable results.

(Heasley Fig. 3 and Fig. 8) "A whole arch bilateral three-dimensional dam with a flat posterior closed end must be equipped with a concave inner diaphragm 17 in order to be a functional dam"

(Heasley Fig. 1 and Fig. 6) "An anterior dam may either have a flat posterior closed end..." (Heasley Fig. 2 and Fig. 7) "..... or alternatively may have a concave posterior closed end) and still be a functional dam".

4.

Horvath's earlier philosophy of not stretching the rubber dam membrane so as not to put any tension on the "fixing device" is rendered obsolete by his new approach of inserting a "fastening means....[with a] spring effect" to hold the rubber dam in place. Significant stretching of the "bag-shaped" rubber dam by the insert which Horvath calls a "fixing device", contradicts Horvath's prior rubber dam inventive philosophy of providing a rubber dam that is largely a tension-free adaptation of the bag in the mouth of the patient.

Horvath [0016] Page 3, lines 1-7:
"When the rubber dam is inserted, the forces exerted by the annular fastening means through its spring effect are therefore transferred vertically, transversally, and sagitally indirectly or essentially indirectly to the oral cavity, in that after insertion into the vestibule the rubber dam produces a tension in the whole covering means, i.e. the wall of the rubber dam."

The "fastening means with a spring effect", is, of course, directly analogous to the resilient inter-arch operative insert of the Heasley patent application. The circular insert